

PATENT COOPERATION TREATY

PCT

INTERNATIONAL PRELIMINARY REPORT ON PATENTABILITY (Chapter II of the Patent Cooperation Treaty)

(PCT Article 36 and Rule 70)

REC'D 02 MAY 2005

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| Applicant's or agent's file reference MA 7735-01WO | FOR FURTHER ACTION | | See Form PCT/PEA/416 | | | | | | | | | | | | | | | | | | | | | | | | |
| International application No. PCT/JP2004/006682 | International filing date (day/month/year) 12.05.2004 | Priority date (day/month/year) 13.05.2003 | | | | | | | | | | | | | | | | | | | | | | | | | |
| International Patent Classification (IPC) or national classification and IPC H05K13/02 | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Applicant MATSUSHITA ELECTRIC INDUSTRIAL CO., LTD. et al. | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| <ol style="list-style-type: none"> 1. This report is the international preliminary examination report, established by this International Preliminary Examining Authority under Article 35 and transmitted to the applicant according to Article 36. 2. This REPORT consists of a total of 6 sheets, including this cover sheet. 3. This report is also accompanied by ANNEXES, comprising: <ol style="list-style-type: none"> a. <input checked="" type="checkbox"/> sent to the applicant and to the International Bureau a total of 7 sheets, as follows: <ul style="list-style-type: none"> <input checked="" type="checkbox"/> sheets of the description, claims and/or drawings which have been amended and are the basis of this report and/or sheets containing rectifications authorized by this Authority (see Rule 70.16 and Section 607 of the Administrative Instructions). <input type="checkbox"/> sheets which supersede earlier sheets, but which this Authority considers contain an amendment that goes beyond the disclosure in the international application as filed, as indicated in item 4 of Box No. I and the Supplemental Box. b. <input type="checkbox"/> (sent to the International Bureau only) a total of (indicate type and number of electronic carrier(s)) , containing a sequence listing and/or tables related thereto, in computer readable form only, as indicated in the Supplemental Box Relating to Sequence Listing (see Section 802 of the Administrative Instructions). | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| <ol style="list-style-type: none"> 4. This report contains indications relating to the following items: <table style="width: 100%; border: none;"> <tr> <td style="width: 10%;"><input checked="" type="checkbox"/></td> <td style="width: 10%;">Box No. I</td> <td>Basis of the opinion</td> </tr> <tr> <td><input type="checkbox"/></td> <td>Box No. II</td> <td>Priority</td> </tr> <tr> <td><input type="checkbox"/></td> <td>Box No. III</td> <td>Non-establishment of opinion with regard to novelty, inventive step and industrial applicability</td> </tr> <tr> <td><input checked="" type="checkbox"/></td> <td>Box No. IV</td> <td>Lack of unity of invention</td> </tr> <tr> <td><input checked="" type="checkbox"/></td> <td>Box No. V</td> <td>Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement</td> </tr> <tr> <td><input type="checkbox"/></td> <td>Box No. VI</td> <td>Certain documents cited</td> </tr> <tr> <td><input type="checkbox"/></td> <td>Box No. VII</td> <td>Certain defects in the international application</td> </tr> <tr> <td><input type="checkbox"/></td> <td>Box No. VIII</td> <td>Certain observations on the international application</td> </tr> </table> | | | | <input checked="" type="checkbox"/> | Box No. I | Basis of the opinion | <input type="checkbox"/> | Box No. II | Priority | <input type="checkbox"/> | Box No. III | Non-establishment of opinion with regard to novelty, inventive step and industrial applicability | <input checked="" type="checkbox"/> | Box No. IV | Lack of unity of invention | <input checked="" type="checkbox"/> | Box No. V | Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement | <input type="checkbox"/> | Box No. VI | Certain documents cited | <input type="checkbox"/> | Box No. VII | Certain defects in the international application | <input type="checkbox"/> | Box No. VIII | Certain observations on the international application |
| <input checked="" type="checkbox"/> | Box No. I | Basis of the opinion | | | | | | | | | | | | | | | | | | | | | | | | | |
| <input type="checkbox"/> | Box No. II | Priority | | | | | | | | | | | | | | | | | | | | | | | | | |
| <input type="checkbox"/> | Box No. III | Non-establishment of opinion with regard to novelty, inventive step and industrial applicability | | | | | | | | | | | | | | | | | | | | | | | | | |
| <input checked="" type="checkbox"/> | Box No. IV | Lack of unity of invention | | | | | | | | | | | | | | | | | | | | | | | | | |
| <input checked="" type="checkbox"/> | Box No. V | Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement | | | | | | | | | | | | | | | | | | | | | | | | | |
| <input type="checkbox"/> | Box No. VI | Certain documents cited | | | | | | | | | | | | | | | | | | | | | | | | | |
| <input type="checkbox"/> | Box No. VII | Certain defects in the international application | | | | | | | | | | | | | | | | | | | | | | | | | |
| <input type="checkbox"/> | Box No. VIII | Certain observations on the international application | | | | | | | | | | | | | | | | | | | | | | | | | |
| Date of submission of the demand 09.03.2005 | | Date of completion of this report 03.05.2005 | | | | | | | | | | | | | | | | | | | | | | | | | |
| Name and mailing address of the international preliminary examining authority: <div style="display: flex; align-items: center;"> <div> European Patent Office - P.B. 5818 Patentlaan 2 NL-2280 HV Rijswijk - Pays Bas Tel. +31 70 340 - 2040 Tx: 31 651 epo nl Fax: +31 70 340 - 3016 </div> </div> | | Authorized Officer Bolder, G Telephone No. +31 70 340-3636 | | | | | | | | | | | | | | | | | | | | | | | | | |



**INTERNATIONAL PRELIMINARY REPORT
ON PATENTABILITY**

International application No.
PCT/JP2004/006682

Box No. I Basis of the report

1. With regard to the **language**, this report is based on the international application in the language in which it was filed, unless otherwise indicated under this item.

☐ This report is based on translations from the original language into the following language, which is the language of a translation furnished for the purposes of:

- ☐ international search (under Rules 12.3 and 23.1(b))
- ☐ publication of the international application (under Rule 12.4)
- ☐ international preliminary examination (under Rules 55.2 and/or 55.3)

2. With regard to the **elements*** of the international application, this report is based on *(replacement sheets which have been furnished to the receiving Office in response to an invitation under Article 14 are referred to in this report as "originally filed" and are not annexed to this report)*:

Description, Pages

1-105 as originally filed

Claims, Numbers

1-22 received on 09.03.2005 with letter of 08.03.2005

Drawings, Sheets

1/21-21/21 as originally filed

☐ a sequence listing and/or any related table(s) - see Supplemental Box Relating to Sequence Listing

3. ☐ The amendments have resulted in the cancellation of:

- ☐ the description, pages
- ☐ the claims, Nos.
- ☐ the drawings, sheets/figs
- ☐ the sequence listing (*specify*):
- ☐ any table(s) related to sequence listing (*specify*):

4. ☐ This report has been established as if (some of) the amendments annexed to this report and listed below had not been made, since they have been considered to go beyond the disclosure as filed, as indicated in the Supplemental Box (Rule 70.2(c)).

- ☐ the description, pages
- ☐ the claims, Nos.
- ☐ the drawings, sheets/figs
- ☐ the sequence listing (*specify*):
- ☐ any table(s) related to sequence listing (*specify*):

* If item 4 applies, some or all of these sheets may be marked "superseded."

**INTERNATIONAL PRELIMINARY REPORT
ON PATENTABILITY**

International application No.
PCT/JP2004/006682

Box No. IV Lack of unity of invention

1. ☒ In response to the invitation to restrict or pay additional fees, the applicant has:
- ☐ restricted the claims.
 - ☒ paid additional fees.
 - ☐ paid additional fees under protest.
 - ☐ neither restricted nor paid additional fees.
2. ☐ This Authority found that the requirement of unity of invention is not complied with and chose, according to Rule 68.1, not to invite the applicant to restrict or pay additional fees.
3. This Authority considers that the requirement of unity of invention in accordance with Rules 13.1, 13.2 and 13.3 is
- ☐ complied with.
 - ☒ not complied with for the following reasons:
see separate sheet
4. Consequently, this report has been established in respect of the following parts of the international application:
- ☒ all parts.
 - ☐ the parts relating to claims Nos. .

Box No. V Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement

1. Statement

| | | |
|-------------------------------|-------------|------|
| Novelty (N) | Yes: Claims | 1-22 |
| | No: Claims | |
| Inventive step (IS) | Yes: Claims | 1-22 |
| | No: Claims | |
| Industrial applicability (IA) | Yes: Claims | 1-22 |
| | No: Claims | |

2. Citations and explanations (Rule 70.7):

see separate sheet

**INTERNATIONAL PRELIMINARY
REPORT ON PATENTABILITY
(SEPARATE SHEET)**

International application No.

PCT/JP2004/006682

Re Item IV.

The separate inventions/groups of inventions are:

1-16 an electronic component feeder for loading a plurality of pallets comprising means to detect correct posture of the pallets.

17-22 an electronic component feeding method in which the components are sucked with a pressure that is lower than a pressure capable of sucking a component feed tray.

Rule 13.1 of the PCT states that an international application shall relate to one invention only or to a group of inventions so linked as to form a single inventive concept. A technical relationship involving one or more of the same or corresponding special technical features is a condition which must be fulfilled.

The subjects 1 and 2 are not linked as to form a single general inventive concept. The only common technical feature for both subjects is "an electronic component feeder". This is known and does not form a special technical feature. The special technical feature of subject 1 is "a means for detecting correct posture of the pallets", which is different from the special technical feature of subject 2 "sucking means with a specific suction pressure".

The subjects are not linked by the same or a corresponding special technical feature.

Conclusion: The application does not meet the requirements of Unity of Invention as defined in Rule 13(1) and (2) of the Patent Cooperation Treaty.

Re Item V.

- 1 The following documents are referred to in this communication:
- D1 : JP 2001 326495 A (JUKI CORP) 22 November 2001 (2001-11-22)
 - D2 : JP 2001 274592 A (YAMAGATA CASIO CO LTD) 5 October 2001 (2001-10-05)
 - D3: US 2002/070570 A1 (BACHTHALER ET AL.) 13 June 2002 (2002-06-13)

2 INDEPENDENT CLAIM 1 (First Invention)

2.1 The document D1 is regarded as being the closest prior art to the subject-matter of claim 1, and shows:

An electronic component feeder for loading a plurality of pallets on each of which a tray is arranged. The pallet is equipped with a mismounting preventing member to detect and prevent a tray from being mounted reversely.

The subject-matter of claim 1 differs from this known D1 in that: apart from detecting reverse mismounting the apparatus also detects inclined mismounting.

The subject-matter of claim 1 is therefore new (Article 33(2) PCT).

2.2 The problem to be solved by the present invention may be regarded as:
How to detect and prevent inclined mismounting.

The solution to this problem proposed in claim 1 of the present application is considered as involving an inventive step (Article 33(3) PCT) for the following reasons:

The proposed solution, using regulating members on the inside of a door whereby a door can only be closed if the trays are mounted correctly, is not taught in the prior art. The prior art of D1 only detects reverse mismounting, due to the shape of the tray. The prior art of D2 detects inclined mismounting using sensors. There is no indication in the prior art of using members on the inside of the door for ensuring correct mounting of trays, nor is this obvious.

3 DEPENDENT CLAIMS 2-16

Claims 2-16 are dependent on claim 1 and as such also meet the requirements of the PCT with respect to novelty and inventive step.

4 INDEPENDENT CLAIM 17 (Second Invention)

4.1 The document D3 is regarded as being the closest prior art to the subject-matter of claim 17, and shows:

An electronic component feeding method in which the components are picked up by a sucking nozzle located at a distance from the tray.

The subject-matter of claim 17 differs from this known D3 in that the nozzle touches the component to be picked up.

The subject-matter of claim 17 is therefore new (Article 33(2) PCT).

4.2 The problem to be solved by the present invention may be regarded as: How to pick up components without jolting the tray.

The solution to this problem proposed in claim 17 of the present application is considered as involving an inventive step (Article 33(3) PCT) for the following reasons:

The proposed solution, picking up the components with very low pressure, is not taught in the prior art. The closest prior art, as disclosed in D3, teaches away from the proposed solution as in D3 the components are picked up with high pressure. The jolting of the tray is avoided by holding the nozzle at a distance from the part to be picked up.

5 DEPENDENT CLAIMS 18-22

Claims 18-22 are dependent on claim 17 and as such also meet the requirements of the PCT with respect to novelty and inventive step.